

**IN THE CLAIMS:**

Please amend the claims as follows:

1        1. (Original) A method of correcting resonance position or the external decay time of a  
2        waveguide micro-resonator comprising physically altering by deposition, removal, or growth  
3        of material in or around said waveguide.

1        2. (Original) The method of claim 1, wherein said altering of the material occurs on  
2        the core of the waveguide micro-resonator.

1        3. (Original) The method of claim 1, wherein said altering of the material occurs in the  
2        cladding of the waveguide micro-resonator.

1        4. (Original) The method of claim 1, wherein reaction products of a deposition or  
2        growth have different chemical compositions from that of the core.

1        5. (Original) The method of claim 1, wherein said altering comprises a wet chemical  
2        reaction.

1        6. (Original) The method of claim 1, wherein said altering comprises a thermal  
2        reaction at temperatures above 100°C.

1        7. (Original) The method of claim 1, wherein reaction products of a growth are  
2        removed after the reaction associated with said growth.

1        8. (Original) The method of claim 1, wherein reaction products of a growth are left  
2        between the core and the cladding after the reaction associated with said growth.

1           9. (Original) The method of claim 1, wherein reaction products of a deposition or  
2   growth have refractive indices that range from that of the core to that of the cladding.

1           10. (Original) The method of claim 1, wherein reaction products of a deposition have a  
2   graded refractive index profile from that of the core to that of the cladding.

1           11. (Original) The method of claim 1, wherein said altering results in a change in  
2   optical path length in said waveguide micro-resonator.

1           12. (Original) The method of claim 1, wherein said altering results in a change in  
2   coupling of said waveguide micro-resonator, thus in a change in coupling efficiency and shape  
3   of the waveguide micro-resonator resonance.

1           13. (Original) A method of correcting the position of or the shape of resonance of a  
2   waveguide micro-resonator comprising focusing a large amount of electromagnetic energy onto  
3   the resonator.

1           14. (Original) The method of claim 13, wherein said electromagnetic energy transfers  
2   a large amount of thermal energy to the cavity core of said waveguide micro-resonator.

1           15. (Original) The method of claim 13, wherein one or more materials comprising the  
2   waveguide micro-resonator undergoes a physical or mechanical change.

1           16. (Original) The method of claim 13, wherein one or more materials comprising the  
2   waveguide micro-resonator core undergoes a physical or mechanical change, or an index  
3   change.

1        17. (Original) The method of claim 16, wherein one or more materials comprising the  
2 waveguide micro-resonator core undergoes an index change as a result of photosensitivity.

1        18. (Original) The method of claim 16, wherein one or more materials comprising the  
2 waveguide micro-resonator core undergoes an index change as a result of a long lasting photo-  
3 refractive effect.

1        19. (Original) The method of claim 13, wherein said electromagnetic energy transfers  
2 a large amount of thermal energy to a region surrounding the waveguide micro-resonator  
3 cavity.

1        20. (Original) The method of claim 13, wherein one or more materials surrounding the  
2 waveguide micro-resonator undergoes a physical change from non-chemical origins.

1        21. (Original) The method of claim 13, wherein one or more materials surrounding the  
2 waveguide micro-resonator undergoes a mechanical change.

1        22. (Original) The method of claim 13, wherein one or more materials surrounding the  
2 waveguide micro-resonator undergoes an index change as a result of photosensitivity.

1        23. (Original) The method of claim 13, wherein one or materials surrounding the  
2 waveguide micro-resonator undergoes an index change as a result of a long lasting photo-  
3 refractive effect.

1        24. (Original) The method of claim 13, wherein said electromagnetic energy induces a  
2 change in optical path length in said waveguide micro-resonator.

1        25. (Original) The method of claim 13, wherein said electromagnetic energy induces a  
2        change in coupling of said micro-resonator, thus a change in coupling efficiency and shape of  
3        the micro-resonator resonance.

Claims 26-39. Canceled